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# Product datasheet for TA346876M

## AKT1 Mouse Monoclonal Antibody [Clone ID: 3B11-G8-B1]

### Product data:

| | |
|---|---|
| **Product Type:** | Primary Antibodies |
| **Clone Name:** | 3B11-G8-B1 |
| **Applications:** | IP, WB |
| **Recommended Dilution:** | WB: 1:1000 |
| **Reactivity:** | Human, Mouse, Rat |
| **Host:** | Mouse |
| **Isotype:** | IgG1 |
| **Clonality:** | Monoclonal |
| **Immunogen:** | The immunogen for AKT antibody: purified recombinant human AKT1 protein fragments expressed in E.coli. |
| **Formulation:** | Purified mouse monoclonal antibody in PBS(pH 7.4) containing with 0.02% sodium azide and 50% glycerol. |
| **Purification:** | Affinity purified |
| **Conjugation:** | Unconjugated |
| **Storage:** | Store at -20°C as received. |
| **Stability:** | Stable for 12 months from date of receipt. |
| **Predicted Protein Size:** | 60 kDa |
| **Gene Name:** | AKT serine/threonine kinase 1 |
| **Database Link:** | NP_001014432<br>Entrez Gene 11651 MouseEntrez Gene 24185 RatEntrez Gene 207 Human<br>P31749 |

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**Background:** Akt1 is involved in cellular survival pathways,by inhibiting apoptotic processes.Akt1 is also able to induce protein synthesis pathways,and is therefore a key signaling protein in the cellular pathways that lead to skeletal muscle hypertrophy, and general tissue growth.Since it can block apoptosis,and thereby promote cell survival,Akt1 has been implicated as a major factor in many types of cancer.Akt(now also called Akt1)was originally identified as the oncogene in the transforming retrovirus,AKT8. Akt2 is an important signaling molecule in the Insulin signaling pathway.It is required to induce glucose transport.In a mouse which is for Akt1 but normal for Akt2,glucose homeostasis is unperturbed,but the animals are smaller,consistent with a role for Akt1 in growth.In contrast,mice which do not have Akt2,but have normal Akt1,have mild growth deficiency and display a diabetic phenotype(insulin resistance),again consistent with the idea that Akt2 is more specific for the insulin receptor signaling pathway. The role of Akt3 is less clear,though it appears to be predominantly expressed in the brain.It has been reported that mice lacking Akt3 have small brains.

**Synonyms:** AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA

**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

**Protein Pathways:** Acute myeloid leukemia, Adipocytokine signaling pathway, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Glioma, Insulin signaling pathway, Jak-STAT signaling pathway, MAPK signaling pathway, Melanoma, mTOR signaling pathway, Neurotrophin signaling pathway, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer, Renal cell carcinoma, Small cell lung cancer, T cell receptor signaling pathway, Tight junction, Toll-like receptor signaling pathway, VEGF signaling pathway